The Impact of Disabilities and Long-term Medical Conditions on the Student Learning Experience at USQ

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ABSTRACT

A disability or long-term medical condition often plays a major role in decision-making regarding many life choices including educational options. Since the introduction of legislation such as the Disability Discrimination Act (1992), educational institutions have implemented organisational and policy changes to improve access and participation for students with a disability. Whilst many improvements have been made, ongoing research is required to assess the impact at the student level. The University of Southern Queensland (USQ) is undertaking a study to examine the learning experience of students with a disability. Through a combination of survey, interview and assessment of learning style, this study reviews a number of aspects including the influence of disability on choices relating to study, barriers to participation, utilisation of support services, and learning style preferences. This paper details the first year of a proposed three-year study. Preliminary results reveal that: neurological conditions may impact less on study by comparison to other disabilities; disability appeared to have the most impact on placements, exams and practicals and the least impact on physical access and online aspects. Quantitative investigation provides an in-depth view of the impact of disability on individual students. Limitations and directions for future research are also discussed. Information from this study will enable USQ to improve services, guide academic practice, and better understand the impact of disability. The information may also be applicable to other educational settings and serve to guide further research in the area.

1. INTRODUCTION

A disability[1] often plays a significant role in decision-making regarding many life choices including educational options. The nature and likely impact of the disability may influence decisions such as: whether one attends university, choice of program, whether to study via distance or on-campus, and choices regarding workload. Additionally, various psychological and environmental barriers may affect successful adjustment (Amosun, Volmink, & Rosin, 2005).

From the 1970s to recent times the social model, focused on environmental, societal and systemic barriers, has been the guiding framework for disability policy. In contrast to the medical model, focused on the person's disability as the major constraint to participation, the social model recognises that ineffectual policy, physical barriers, and the attitudes of others could be more "disabling" than the condition itself (Fuller, Healey, Bradley & Hall, 2004; Goode, 2007).

[1] the term "disability" will be used throughout this document to cover both disability and long-term medical conditions / chronic illness.

Whilst services and policies based on principles of social justice have reduced many barriers "Often, policies of integration have been promoted which are based on a narrow conception of social justice defined simply as a matter of the rights of students with disabilities to have access to regular [learning facilities]" (Rizvi & Lingard, 1996).

The introduction of the Disability Discrimination Act (1992), has led to organisational and legislative changes that have improved access and participation for students with a disability in higher education. Growing awareness amongst education providers of the benefits of inclusive learning and teaching has removed further barriers. Despite this progress, universities, faculties and individual staff are often at different places on a continuum in terms of attitudes towards students with disabilities and skills in inclusive teaching and learning (Fuller et al., 2004).

Whilst change at the legislative level is been evident, further research is required to assess progress at the individual student level. "Chronic illness [and disability] can impact on every aspect of a student's development, effecting academic performance, self-esteem, social relationships, and ultimately the ability to access the same educational outcomes as healthy peers" (Shiu, 2001).

Studies in the United Kingdom explored the experiences of students with disabilities in higher education. Fuller et al. (2004) found barriers to success in study that included assessment (exams, oral presentations) and curriculum. Attitudes of staff, access to information and the importance of early experiences were key influences on student perceptions (Fuller et al. 2004; Goode, 2008). The current study investigated the experiences of students with disabilities in an Australian university. The study examined the impact of disability on a range of choices relating to study, aspects of the university experience, and learning style preferences.

2. METHODS

The current study used qualitative and quantitative methods to ensure common "themes" in the student experience are identified, as well as individual "stories". The study used a multiple-case design (Yin, 1989) "rather than relying on a single-case design, where one particular illness [or disability is] explored... many stories were deliberately heard" (Vickers, 2003a).

2.1 Participants

The 33 participants in this study were students newly registered with the USQ disability service. "Sampling was purposive, aimed at illuminating the richness of individual experience" (Vickers, 2001). Participation in the study was voluntary and targeted students beginning their studies with a view to following them through three years at university. Participants were asked to identify a primary disability (Table 1). Due to the small sample size, participants were grouped into broader categories for purposes of statistical analysis. Medical, neurological and psychological categories accounted for over 84% of primary disabilities.

Most students (70%) are enrolled in a Bachelor degree. Many areas of study were reported, with students from every faculty represented. Students in the sample are almost equally divided between on-campus (55%) and external (45%) modes of study.

Table 1. Participants' Grouped Primary Disabilities

Disability Category	%	Primary Disability
Hearing Impairment	6	hearing impairment
Vision Impairment	3	vision impairment
Learning Disability	3	learning disability
Medical Condition	36	arthritis, autoimmune disease, chemical sensitivity, chronic pain, Crohn's disease, diabetes, fibromyalgia, irritable bowel syndrome
Neurological Condition	21	acquired brain injury, Asperger's syndrome, epilepsy, neurological condition – other, stroke (CVA)
Psychological Condition	27	anxiety, bipolar disorder, depression, schizophrenia
Physical Impairment	3	carpal tunnel syndrome, multiple sclerosis

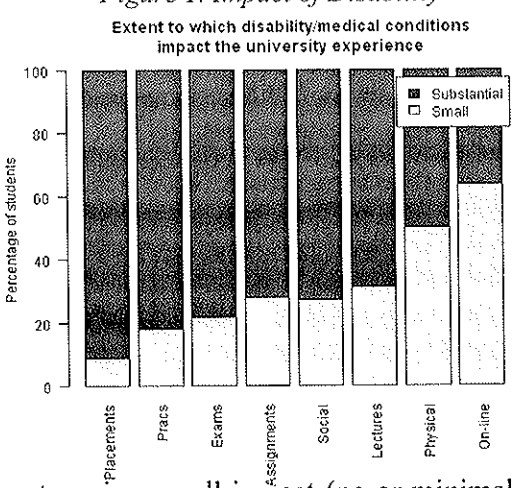
2.2 Materials and Procedure

An initial survey evaluated the impact of disability on aspects of the university experience: examinations, placements, practicals, assignments, social, physical access, lectures, and on-line learning. Students rated the impact for each item on 5-point scales ranging from 1 (*no impact*) to 5 (*extreme impact*); or "not applicable". Participants were able comment on each item. Other information included: previous study environment, information accessed prior to enrolment, and concerns about starting university. The VARK (Visual, Auditory, Read-Write, and Kinaesthetic) Questionnaire was used to assess students' preferred learning styles (Fleming & Bonwell, 2006). The survey, VARK, consent form and introductory letter were sent to students newly registered with the disability service. Thirty-four surveys (final sample n=33) were returned from 98 sent. Those who did not return surveys were phoned and asked if they wanted to participate. Once surveys were returned participants were contacted to clarify information as necessary.

3. RESULTS

The small sample size precludes firm conclusions; however the value of the results and observations about the data will guide future research. Following are the outcomes of both of the qualitative and quantitative aspects of the survey.

Figure 1. Impact of Disability



3.1 Aspects of the University Experience: Impact of Disability

Some students reported that their disability fluctuates, and thus its impact on aspects of university varies. In these situations student responses reflect the median point of impact. For example, one student reported that due to the fluctuations of the illness, the impact for many survey items varied from no impact (1) to extreme impact (5). The student explained that they circled moderate impact (3) as an average impact.

For analysis, the 5-point scale was reduced to two categories: small impact (no or minimal impact) and substantial impact (moderate, significant or extreme). Placements, exams, and practicals were areas impacted most by disability (Figure 1); more than 80% of students reported a substantial impact for placements, and more than 70% for exams and practicals. Areas of least reported impact were on-line learning and physical access.

Approximately half the sample were enrolled externally, and typically reported not applicable, no impact, or minimal impact when rating physical access.

3.2 Year of Exit of Study Environment: Impact?

Of interest was whether length of time between exiting one's most recent study setting (prior to USQ) and beginning at USQ impacted on aspects of the university experience. Length of time between study settings also serves as a proxy for age as younger students cannot have a long period of time between settings. Year of exiting the last study setting (2005 and later, or before 2005) and impact on physical access was a statistically significant association (chi-square = 8.13, Monte Carlo simulated p = 0.011). Students who exited their last study setting in 2005 or later less frequently reported a substantial impact on physical access than students who exited before 2005.

3.3 Different Disabilities: Different Impacts?

Also of interest was whether different disabilities have differing impacts on university experience. The three groups with the largest samples were analysed: medical (n=12), neurological (n=7), and psychological (n=9). Students with neurological conditions reported less impact on all aspects experience except physical access (though no differences were statistically significant; Monte Carlo simulated p-values all exceed 0.13). Despite little statistical power to detect difference for all aspects, the consistent message is that neurological conditions may have a lesser, or more manageable, impact.

3.4 Preferred Learning Style

The most common learning style was a multi-modal style, consisting of all four styles (i.e., Visual, Aural, Read-Write, and Kinaesthetic). The second most common was Read-Write. No students identified a preference for Visual style alone. A multi-modal style is not uncommon; the VARK database reports 34% of people with this preference (Fleming, 2007). These results highlight a potential discrepancy between the styles thought, by many lecturers, to provide most effective learning (read-write and visual) and actual student preferences (Reese & Dunn, 2007).

3.5 Qualitative Information

The following qualitative comments provided an in-depth picture of the individual experiences of students. The following responses relate to the survey question: "What is your biggest concern about coming to university?" This question provided students with an opportunity to list concerns or barriers not highlighted in previous questions and to reflect on their individual experience.

Themes arising from the comments reflected awareness that the students' experiences may be different from peers. They expressed their concerns about their ability to succeed academically. The following comment emphasised the uncertainties students with a disability may face:

> *Not being able to physically undertake the requirements of the lecture or complete assessments for the course worries me greatly. There are times when I'm not sure if I fit in. Handling the workload and fear of failing are two issues that are constantly on my mind.*

Students with disabilities are constantly juggling the way they appear to others, the expectations of others as well as their university study (Goffman, 1976; Vickers, 2001).

Most of the time my illness is under control however when it's not, I just can't do anything. The problem is that I can't tell when this is about to happen, I might have a flare next week, next month or possibly not until next year, I just don't know.

Uncertainty may turn out to be a way of life and students are reluctant to let life pass them by. The attitudes expressed show that disability is just another of life's hurdles and they express a determination to continue with study until circumstances dictate that this is no longer possible.

I fear a relapse and subsequent invasive treatment. This would have an extreme impact on my study. I have just returned to study after treatment. I am finding this semester very hard.

Individuals with disability work at managing their image (Rizvi & Lingard, 1996b; Vickers, 2003). For university students this may be reflected in decisions regarding what program or courses to study or in what mode to study. The framework of support provided by the institution governs, in many ways, the experience of students with disability.

I hope can find resources to support my learning journey.

While this student is almost certainly referring to wider supports than just those offered by the institution, the statement highlights how supports are perceived by students who request them.

This is my second go at tertiary study, first I tried TAFE and now university, and I really, really hope that this will be the right place for me and I have a chance of success this time.

Success at university is rarely easy for any student. Listening to the comments of these students and learning from them is a requirement in order to continue to develop effective supports essential to promoting student success.

4. DISCUSSION AND CONCLUSIONS

The study investigated the experience of students with disabilities in an Australian context, and examined the impact of disability on a range of choices relating to study, aspects of the university experience, and learning style preferences. The study provided a number of initial insights into the experiences of students with a disability. Students with neurological conditions may experience less impact from their disability than other groups, however, the reasons for this require further exploration. Physical access proved to be significant when related to length of time since the student last studied. Further investigation is required to determine whether age-related factors play a role. Disability had the most reported impact on placements, exams and practicals and the least impact on physical access (except for group mentioned above) and 'online' aspects of study.

The team also investigated the impact of disability on the learning styles of students. The most popular style was the multi-modal style, a combination of all four learning styles (i.e., Visual, Aural, Read-Write, and Kinaesthetic) which reflected the general population. Further, the value to students in completing a learning style inventory is that they become aware of their own learning style which in turn facilitates successful learning (Reese et al., 2007).

The qualitative aspects of this study and the opportunity for students to provide in-depth comments regarding their individual circumstances served to balance the data with examples of lived experiences. Limitations such as a small sample size and an inability to recruit participants who had not disclosed their disability to the service may have produced results that are not reflective of the total population of USQ students with disabilities. In addition an over-representation of external students in the sample compared to percentage of external students in the total USQ population may contribute to atypical responses for aspects such as physical access

and social aspects. The results should therefore be viewed as preliminary findings providing direction for future studies in this area.

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7. BIOGRAPHY

Kym Lawson is Co-ordinator of Disability Resources at the University of Southern Queensland (USQ). Since graduating as an Occupational Therapist she has worked in the disability field for 11 years, initially in early intervention and services for adults with intellectual disability. Kym has been at USQ for 18 months and has an interest in investigating the experiences of students to assist in improving services and ensuring that students reach their full potential in their studies.